

**Amendments to the Specification:**

Please replace paragraph [0018] with the following amended paragraph:

[0018] The computer 100 may be connected to a network 112, which may be, for example, a complete network or a subnet of a local area network, a company wide intranet, and/or the Internet. The computer 100 may be identified on the network 112 by an address or a combination of addresses, such as a media ~~control~~-access control (MAC) address associated with the network interface 108 and an internet protocol (IP) address. A wide range of flexibility may be anticipated in the configuration of the computer 100. Other embodiments include a distribution of computers and computing devices. Some of the computers and/or computing devices may include pagers, personal digital assistants, cellular telephones, laptop computers, and the like. Furthermore, it is understood that in some implementations, the computer 100 may act as a server to other computers and/or computing devices.

Please replace paragraph [0020] with the following amended paragraph:

[0020] Continuing with the present example, the computer 100 includes a logistics system, and a work-in-process (WIP) inventory system, a product data management system, a lot control system, and a manufacturing execution system (MES). The WIP inventory system may track working lots using a database. The product data management system [[326]] may manage product data and maintain a product database. The product database may include product categories (e.g., part, part numbers, lot numbers, and associated information), as well as a set of process stages that may be associated with each category of products. The lot control system may convert a process stage to its corresponding process steps.

Please replace paragraph [0023] with the following amended paragraph:

[0023] Referring also to FIG. 2, the computer 100 and the entities 114-120 of the foundry 10 may be represented as a plurality of computing devices forming a job flow mechanism 200. Job flow mechanism 200 may include a plurality of similar and/or different systems and/or sub-systems. The components of job flow mechanism 200 may be modeled as a Petri Net (PN) structure including a PN Center 202, PN Agents 204, 206, 208~~204-206-208~~, a PN Remote Controller 216, application processes, routines, or programs (collectively referred to as "application processes") 210, 212, 214, and PN description files 218. The PN Center 202 may be a central controller that may reside on the computer 100 (FIG. 1) that may control batch job processes. The PN agents 204, 206, 208 may also include computers associated with or in communication with the entities 114, 116, and 118. The PN Remote Controller 216 may include a separate entity 120 and/or may represent additional functionality performed by one of the other entities 114, 116, and/or 118.